REMARKS

Claims 1-30 were previously canceled. Claim 31 had been amended and claims 32-36 have been added. Claims 31-36 remain pending in the application.

Double Patenting

Claims 31 was rejected under rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 26 of U.S. Patent No. 6,372,185. Applicants respectfully traverse this rejection.

Claim 31 has been amended to include "a plurality of liquid handlers, each liquid handler comprising 96 or more tips." Claim 26 of U.S. Patent No. 6,372,185 includes "at least one liquid handler comprising 48 or more, but not less than 384, tips." In view of the foregoing amendment to claim 31, Applicants respectfully submit that claim 31 now does not conflict with claim 26 of U.S. Patent No. 6,372,185 and should be patentably distinct. Applicants respectfully request withdrawal of this rejection.

The Rejection of Claim 31 Under 35 U.S.C. §103(a)

Claims 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lebl et al. (6,045,755) in view of Pfost et al. (5,104,621). Applicants respectfully traverse this rejection. Claim 31 has been amended.

Claim 31 is directed to a chemical distribution system, which distributes chemicals to multiwell plates having at least 384 wells. The system includes a plurality of liquid handlers, each liquid handler comprising 96 or more-tips. Therefore, according to the invention, there must be a plurality of liquid handlers and the number of tips in the liquid handler must always be less than the number of wells in the multiwell plates.

In order to address all the wells in the 384 multiwell plate, one example system may include 4 liquid handlers with 96 tips (4 x 96 = 384). Another example system may comprise two liquid handlers with 96 tips moved to two different positions by orthogonal positioner (2 x

92 x 2 positions = 384). Other system combinations of liquid handlers and tips may also be used, but at no time can all the wells of the multiwell plate be addressed at once by one liquid handler.

Lebl et al. not only does not disclose the above limitations, but also teach away from them. Lebl et al. describes the layout of the reaction vessel wells, stating:

> It is advantageous to adapt embodiments of the robot of this invention to such a common standard rectangular 85x130 mm form factor of microtiter plates. This form factor can accommodate a rectangular 8x12 array layout of 96 reaction wells ... .(Lebl, col. 11, lines 1-5) Alternative standardizations, *merely requires changes in fluid handling tip arrays*, work station sizes, and gripper tools. (Lebl, col. 11, lines 17-19, emphasis added)

Furthermore, Lebl et al. states:

> Bottom plate 402 carries an array of aspiration/dispensing needles 412 *arranged and spaced to match the arrangement and spacing of apertures of reaction vessel arrays*. Therefore, one embodiment of this work station has bottom plate 402 with 96 needles 412 spaced in a 8 x 12 rectangular array *to match reaction vessel arrays having 96 rectangularly arranged wells*, and another embodiment has bottom plate 402 with a 4 x 6 array of needles *conforming to reaction vessels arrays* having 24 rectangularly placed reaction vessels. (Lebl, col. 31, lines 28-37, emphasis added)

Finally, Lebl et al. states:

> This workstation can be adapted to various arrangements of reaction vessels in arrays by merely replacing bottom plate 402, with its array of needles 412, with other bottom plates *having needle arrays conforming to the reaction vessel array layouts to be serviced.* (Lebl, col. 31, lines 41-44, emphasis added)

The Lebl et al. reference, therefore, teaches a device in which the number and arrangement of the needles (or tips) used to aspirate solutions from or dispense solutions into the wells of a multiwell plate is the same as the number and the arrangement of wells of the multiwell plate. In fact, the reference teaches that if a multiwell plate other than the standard 96 well plate is to be used, then the arrangement of the needles must be changed to conform with the arrangement of the new plate.

Applicants respectfully submit that those skilled in the art who read and understand Lebl et al. would be inclined to build a liquid distribution system having one liquid handler with the number of tips matching the number of wells of the multiwell plate. Lebl et al. further teaches that if the number of wells changes, then the number of tips would be changed on the liquid handler. Therefore, Lebl et al. teaches away from the instantly claimed invention in which a plurality of liquid handlers is used, each having the number of tips smaller than the number of wells of the multiwell plate.

As a result, Applicants respectfully submit that the cited references, either individually or in combination, do not teach or suggest all of the claim elements of amended claim 31 and respectfully request reconsideration and withdrawal of this rejection.

New claims 32-36

Applicants have added new claims 32-36, which are similar in scope to canceled claims 5-9. These claims ultimately depend from amended claim 31 and should be allowable for at least the same reason discussed above. No new matter has been added.

If there are any questions, the Examiner is invited to call Applicants' representative at the number below to expedite allowance of the pending claims.

The Commissioner is hereby authorized to charge any other fees that may be associated with this communication, or credit any overpayment to Deposit Account No. 50-1355.

Respectfully submitted,

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